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Dec. 3. The same relative appearance exactly of planet and small star as on October 10th. The direction of the ring estimated at about 70° with the parallel of daily motion. The small star about 3 diameters distant and 50° N. following. Telescope as before.

4. No minute star visible, though carefully looked for. Telescope as before.

Mr. Lassell says that the points of light seen on October 10, November 30, and December 3, were, so far as he could judge, the same in appearance and brightness. There were no other stars in the immediate neighbourhood. Hence he conceives the probability is in favour of the star being a satellite.

With respect to the ring, Mr. Lassell says, that "he has never looked at the planet, under tolerable circumstances, without receiving the same impression of its existence;" and that so far as he can judge, the direction of the supposed ring makes a constant angle with the meridian, and not with the horizon: but this is not very certain.

In speaking of the quality of his telescope, Mr. Lassell says that he finds Merz's prism gives him more light than a plane reflector, and with no loss of distinctness, and that he has succeeded in bringing the foci of his exterior and inner surface to agree within a hundredth of an inch. The telescope shews 7 stars in, and 2 near, the trapezium of *Orion*, and so far approaches to *resolving* the nebula, that it shews " stars, the centres of nebulous clouds, scattered all over the nebula."

In confirmation of Mr. Lassell's idea that there is a ring about the new planet, Mr. Hind stated that the South Villa telescope shews it oblong, and that the major axis makes an angle of about 30° with the meridian.

Reduction of TYCHO BRAHE*'s Observations of the Comet of* 1590, *with Elements deduced therefrom.*

By Mr. Hind.

"The comet of 1590 was first perceived by Tycho Brahe on the evening of March 5, while he was employed in observing the planet *Venus.* It was situated near the Northern Fish, between *Aries* and *Andromeda.* The diameter of the head was three minutes, and a faint tail was visible, extending from 7° to 10°, and directed towards the zenith at about 7^h 30^m p. m.

M. Pingré, in his *Cometographie*, t. i. p. 554, has given a series of observations on this comet made by Tycho, and extracted from a manuscript preserved at the Depôt de la Marine, in Paris. The observations are detailed at considerable length in this manuscript, but the table in M. Pingré's work is an abstract made by Tycho himself, and I have used it as the basis of my calculations. For deducing the places of the comet, we have, the apparent times of observation at Uraniburg, the distances from known stars, and the declinations for the same times as these distances; also, in most cases, the comet's altitude, and frequently its azimuth from the

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south towards the west. I have calculated the positions from the observed declinations and distances, duly corrected for parallax and refraction, making use of the altitudes in the preliminary computations only. On two occasions the comet was observed on the meridian *sub polo;* in these cases I have performed the reductions in the usual manner, applying refraction and parallax."

Mr. Hind then presents tabular results of his reductions at the following stages:

An ephemeris of the sun.

A catalogue of the stars of comparison.

An *approximate* ephemeris of the comet, for computing the effects of aberration and parallax.

The observed distances of the comet from the stars corrected for refraction, aberration and parallax, with the Uraniburg mean time, and the resulting right ascension and declination of comet.

" The following longitudes and latitudes are computed from a mean of each day's observations of right ascension and declination, omitting, however, the third result for March 6, and the first for March 7. They are referred to the apparent equinox of the date.

Mean Time at Uraniburg.	Comet's Geocentric Longitude.	Comet's Geocentric Latitude.
	° ′ ″	° ′ ″
March 5·36087	18 15 25	+18 12 58
6·29647	25 46 21	19 27 44
7·38396	33 21 14	20 21 32
8·32461	38 56 11	20 51 1
10·32981	48 6 39	21 20 26
11·43862	52 2 3	21 14 33
12·36629	54 49 1	21 9 26
13·35634	57 23 19	21 5 22
14·39625	59 40 14	20 58 14
16·33600	63 10 12	+20 47 55

After a great many trials, I at last fixed upon a parabolic orbit, which appears to represent the observations with as much, or nearly as much, accuracy as they admit. It would be manifestly a hopeless business to attempt any determination of the particular conic section described by the comet, from positions extending over so short a period, and at the same time so rough. Should the comet reappear, the observations of 1590 will be in a more tangible form than heretofore."

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Parabolic Elements.

Passage through Perihelion, 1590, Feb. 8·0624, Uraniburg Mean Time, New Style.

Longitude of Perihelion on the orbit	217° 57′ 12″	App. Eq. March 10.
Ascending Node	165 56 56	
Inclination to the Ecliptic	29 29 44	
Log. distance in Perihelion............	9·7541386	
Heliocentric motion.	Retrograde.	

"These elements, compared with the above longitudes and latitudes, give the following differences.

	Computed — Observed Place.	
March	Long.	Lat.
5	+ 34″	− 75″
6	+ 38	0
7	− 23	+ 160
8	− 126	+ 91
10	+ 75	− 346
11	+ 29	+ 5
12	− 10	+ 106
13	− 95	+ 6
14	+ 8	+ 3
16	+ 69	− 272

The comet of 1590 is described by Martin Mylius in his *Annales Gorlicenses*, published as part of a work entitled *Scriptores Rerum Lusaticorum*, Lipsiæ et Budissæ, 1719; in folio. It was also the subject of a treatise by Matthias Menius, printed in 1591. Lubienietski, in his great work *Theatrum Cometicum*, gives us a chart shewing the path of the comet in the heavens: he quotes Ricciolus and other writers."

It is almost unnecessary to say that the reductions have been made on the best existing data, and according to the most approved methods.

Description of an Astronomical Observatory at Camden Lodge, near Cranbrook, Kent. By the Rev. W. R. Dawes.

"In the autumn of 1845 I erected, in the grounds of my present residence, a small observatory, a brief description of which I beg to present to the Astronomical Society.

In the erection of the building my principal object was to secure perfect dryness, and a speedy equalisation of the interior and exterior temperature. With a view to the first of these requisites, the foundation has been excavated about eighteen inches below the level of the soil, and the boarded floor elevated twelve inches above it: several air-bricks, or gratings, being introduced on all sides to insure a free circulation of air under the floor. On the foundation walls, which rise to the surface, large blocks of stone are laid, in the top of which, at intervals of about three feet, mortices are cut to receive the tenons at the lower end of strong upright posts of fir-wood, the tenons at the upper end of the same being inserted into